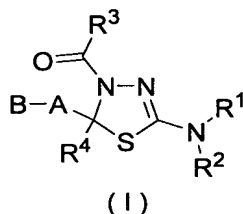


What is claimed is:

1. A thiadiazoline derivative represented by the general formula (I), or a pharmacologically acceptable salt thereof:



<wherein,

R¹ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, or substituted or unsubstituted cycloalkyl,

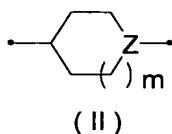
R² represents a hydrogen atom, or -COR⁵ (wherein R⁵ represents substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, or substituted or unsubstituted cycloalkyl), or

R¹ and R² are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group,

R³ represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, or substituted or unsubstituted cycloalkyl,

R⁴ represents substituted or unsubstituted aryl, or a substituted or unsubstituted heterocyclic group,

A represents -(CH₂)_n- (wherein n represents an integer of 1 to 6), or a group of the formula (II)



(wherein m represents an integer of 0 to 2, and Z represents CH or a nitrogen atom capable of binding to B), and

(i) when A is -(CH₂)_n-, and n is 1 or 2,

B represents -NR⁶R⁷ {wherein R⁶ represents a hydrogen atom, or lower alkyl, R⁷

represents substituted lower alkyl, $-\text{COR}^8$ [wherein R^8 represents substituted lower alkyl (provided that R^8 is not trifluoromethyl), substituted lower alkoxy, substituted or unsubstituted aryloxy, a substituted or unsubstituted heterocyclic group, or $-\text{NR}^9\text{R}^{10}$ (wherein R^9 and R^{10} are the same or different, and represent a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, or a substituted or unsubstituted heterocyclic group, or R^9 and R^{10} are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group)], or R^6 and R^7 are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group},

$-\text{OR}^{11}$ (wherein R^{11} represents substituted lower alkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower alkylcarbamoyl, substituted or unsubstituted di-(lower alkyl)carbamoyl, or substituted or unsubstituted heterocyclylcarbonyl),

$-\text{SR}^{12}$ (wherein R^{12} has the same meaning as that of the aforementioned R^{11}), or $\text{CH}=\text{NR}^{13}$ (wherein R^{13} represents hydroxy, or substituted or unsubstituted lower alkoxy),

(ii) when A is $-(\text{CH}_2)_n-$, and n is an integer of 3 to 6 ,

B represents $-\text{NR}^{14}\text{R}^{15}$ {wherein R^{14} and R^{15} are the same or different, and represent a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, a substituted or unsubstituted heterocyclic group, $-\text{COR}^{16}$ [wherein R^{16} represents substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, a substituted or unsubstituted heterocyclic group, substituted or unsubstituted lower alkoxy, substituted or unsubstituted aryloxy, or $-\text{NR}^{17}\text{R}^{18}$ (wherein R^{17} and R^{18} are the same or different, and represent a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, or a substituted or unsubstituted heterocyclic group, or R^{17} and R^{18} are combined together with the adjacent nitrogen atom to form

a substituted or unsubstituted heterocyclic group)], or $\text{-SO}_2\text{R}^{19}$ [wherein R^{19} represents substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, a substituted or unsubstituted heterocyclic group, or $\text{-NR}^{20}\text{R}^{21}$ (wherein R^{20} and R^{21} are the same or different, and represent a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted lower alkynyl, or substituted or unsubstituted cycloalkyl, or R^{20} and R^{21} are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group)], or R^{14} and R^{15} are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group},
 -OR^{22} (wherein R^{22} has the same meaning as that of the aforementioned R^{11}),
 -SR^{23} (wherein R^{23} has the same meaning as that of the aforementioned R^{11}), or
 -CH=NR^{24} (wherein R^{24} has the same meaning as that of the aforementioned R^{13}),
 (iii) when A is a group of the formula (II),

B represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted lower alkoxycarbonyl, or substituted or unsubstituted lower alkylsulfonyl>.

2. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 1, wherein R^1 is a hydrogen atom, or lower alkyl.

3. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 1 or 2, wherein R^2 is -COR^5 (wherein R^5 has the same meaning as that mentioned above).

4. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 3, wherein R^5 is lower alkyl.

5. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 3, wherein R^5 is tert-butyl.

6. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 5, wherein R^3 is lower alkyl.

7. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 5, wherein R^3 is tert-butyl.

8. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 7, wherein R^4 is substituted or unsubstituted aryl.

9. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 7, wherein R⁴ is phenyl.

10. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 9, wherein A is -(CH₂)_n (wherein n has the same meaning as that mentioned above).

11. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 10, wherein n is 1 or 2.

12. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 11, wherein B is -NR⁶R⁷ (wherein R⁶ and R⁷ have the same meanings as those mentioned above, respectively).

13. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 12, wherein R⁶ is a hydrogen atom.

14. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 12 or 13, wherein R⁷ is -COR⁸ (wherein R⁸ has the same meaning as that mentioned above).

15. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 12, wherein R⁶ and R⁷ are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group.

16. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 10, wherein n is an integer of 3 to 6.

17. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 10, wherein n is 3.

18. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 16 or 17, wherein B is -NR¹⁴R¹⁵ (wherein R¹⁴ and R¹⁵ have the same meanings as those mentioned above, respectively).

19. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 18, wherein R¹⁴ is a hydrogen atom.

20. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 18 or 19, wherein R¹⁵ is substituted or unsubstituted lower alkyl.

21. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 18 or 19, wherein R¹⁵ is -COR¹⁶ (wherein R¹⁶ has the same meaning as that mentioned above).

22. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 21, wherein R¹⁶ is a substituted or unsubstituted heterocyclic group.

23. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 21, wherein R¹⁶ is -NR¹⁷R¹⁸ (wherein R¹⁷ and R¹⁸ have the same meanings as those mentioned above, respectively).

24. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 18 or 19, wherein R¹⁵ is -SO₂R¹⁹ (wherein R¹⁹ has the same meaning as that mentioned above).

25. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 9, wherein A is a group of the formula (II).

26. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 25, wherein Z is a nitrogen atom.

27. The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 25 or 26, wherein B is a hydrogen atom, or substituted or unsubstituted lower alkyl.

28. A pharmaceutical composition which comprises the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27 as an active ingredient.

29. A mitotic kinesin Eg5 inhibitor which comprises the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27 as an active ingredient.

30. An antitumor agent which comprises the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27 as an active ingredient.

31. A method for inhibiting a mitotic kinesin Eg5 which comprises administering an effective amount of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27.

32. A method for therapeutic treatment of a malignant tumor which comprises administering an effective amount of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27.

33. Use of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27 for the manufacture of a mitotic kinesin

Eg5 inhibitor.

34. Use of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to any one of claims 1 to 27 for the manufacture of the antitumor agent.